

REMARKS

The present Amendment amends claims 1-11. Therefore, the present application has pending claims 1-11.

Claim 3 stands objected to due an informality noted by the Examiner in paragraph 2 of the Office Action. Amendments were made to claim 3 so as to correct the informality noted by the Examiner. Therefore, this objection is overcome and should be withdrawn.

Claims 1, 2, 4-6 and 8-11 stand rejected under 35 USC §103(a) as being unpatentable over Kodama (U.S. Patent No. 6,374,262) in view of Nakai (U.S. Patent No. 5,954,803); and claims 3 and 7 stand rejected under 35 USC §103(a) as being unpatentable over Kodama in view of Nakai and further in view of Kawagoe (U.S. Patent No. 6,438,563). These rejections are traversed for the following reasons. Applicants submit that the features of the present invention as now recited in claims 1-11 are not taught or suggested by Kodama, Nakai or Kawagoe whether taken individually or in combination with each other as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw these rejections.

Amendments were made to each other claims so as to more clearly describe features of the present invention. Particularly, amendments were made to each of the claims to more clearly recite that the present invention is directed to a database system having a master database to be updated and a replica for storing a duplicate of the master database. Unique according to the present invention is that preferential order information is held indicating a preferred order of updating either

one of a specific database table, preferential table columns and preferential keys of a column with respect to update data of a master database.

By use of the above described features of the present invention when copying the update of a master database into a replica, update data can be preferentially copied so as to update a specific database table, preferential table columns or preferential keys of a column of the database. These features are clearly not taught or suggested by any of the references of record whether taken individually or in combination with each other. Specifically, these features are not taught or suggested by Kodama, Nakai or Kawagoe whether taken individually or in combination with each other as suggested by the Examiner.

Kodama discloses a technique where the update data of a master database is copied onto a replica. However, Kodama fails to teach or suggest the present configuration in that a database system copies specific update data preferentially to columns or the lien of specific database table on a replica.

Nakai et al discloses a DMA controller which controls memory-to-memory data transfer. This DMA controller has a storage section for storing the order of preference with respect to a plurality of data-transfer operations using the DMA process. However, unlike the present invention, Nakai does not copy specific update data preferentially to columns or the like of a specific database table on a replica as in the present invention.

In Kodama's technique, the data stream flowing from the master database to the replica is a single data stream with the update data arranged in the order of update time. In contrast, Nakai's DMA controller controls a plurality of data streams

flowing between memories or between memory and the I/O device. Kodama distinguishes and extracts the update records using the key time like master differential extraction completion time or replica differential reflection time, but does not teach or suggest that the database system preferentially extracts the update data with a specific database table, preferential columns or preferential keys as in the present invention. Nakai provides the order of preference among a plurality of data streams, not allowing the above-mentioned specific update data to transfer prior to other update data as in the present invention.

As described above, the present invention allows the specific update data to be extracted from a single update data stream arranged in the order of update time in order to reflect the extracted data preferentially on the replica. This feature is not taught or suggested by neither Kodama nor Nakai. Therefore, it is quite clear that the features of the present invention recited in claims 1-11 are not taught or suggested by Kodama in view of Nakai.

Kawagoe's database includes management information and database identifiers indicating the update history of the management information. The database identifiers are supposed to be a version showing a number of record update times. The identifiers are used for synchronizing a master database with its back-up database. Hence, Kawagoe does not teach or suggest that the database system favors the specific update data based on the use history of the replica as in the present invention. Therefore it is quite clear that the features of recited in claims 1-11 are not taught or suggested by Kawagoe when combined with Kodama and Nakai.

As is quite clear from the above, the combination of Kodama, Nakai and Kawagoe fails to teach or suggest the features of the present invention wherein preferential order information is held indicating a preferred order of updating either one of a specific database table, preferential table columns and preferred keys of a column with respect to update data of a master database on a replica as recited in the claims.

Accordingly, reconsideration and withdrawal of the above described rejections of claims 1-11 under 35 USC §103(a) as being unpatentable over Kodama taken in combination with one or more of Nakai and Kawagoe is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 1-11.

In view of the foregoing amendments and remarks, Applicants submit that claims 1-11 are in condition for allowance. Accordingly, early allowance of claims 1-11 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (520.39413X00).

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP



Carl I. Brundidge
Registration No. 29,621

CIB/jdc
(703) 312-6600